<mark>Applied Mathematics,</mark> Session One
Classroom: K4.31
King's College London Undergraduate Summer School 2018

	Monday 2 July	**Tuesday 3 July**	**Wednesday 4 July**	**Thursday 5 July**	**Friday 6 July**
Morning 9am – 12.30pm	Lecture 1: *Introduction and Basic Concepts* Problem Class: *Trigonometry, Logs and Exponentials* Group activity: *Great Mathematicians*	Lecture 2: *Quantities and Vectors* Problem Class: *Vectors and Newton's Laws* Group Activity: *Using King's Library and Online Resources*	Lecture 3: *Differentiation* Problem Class: *Differentiation* Group activity: *Linear Approximations and Taylor Series*	Lecture 4**:** *Application of Differentiation to Engineering* Problem Class: *Problems in Engineering* Group activity: *Analysis of wave signals*	Guest speaker 1: Prof Gilmour – *Statistics in Engineering* Guest speaker 2: Dr Bishop – *Computational Modelling in Engineering*
Afternoon	**Welcome Talk: 1pm** Room: FWB B5 **Enrolment: 4pm** Room: FWB B2.81	Private study or free time	Private study or free time	Private study or free time	Private study or free time
	Monday 9 July	**Tuesday 10 July**	**Wednesday 11 July**	**Thursday 12 July**	**Friday 13 July**
Morning 9am – 12.30pm	Lecture 5: *Integration* Problem Class: *Integration* Group activity: *Area under a curve*	Lecture 6: *Application of Integration to Engineering* Problem Class: *Problems in Engineering* Group activity: *Cardiac output calculation*	Lecture 7: *Complex Numbers* Problem Class: *Complex Numbers* Group activity: *Finding the treasure* (Time TBC)	Lecture 8: *Ordinary Differential Equations (first order)* Problem Class: *First order ODEs* Group activity: *The Windkessel blood flow model*	Excursion: Visit to the *Mathematics Winton Gallery* [London Science Museum]
Afternoon	Private study or free time	Private study or free time	Private study or free time	Private study or free time	Private study or free time
	Monday 16 July	**Tuesday 17 July**	**Wednesday 18 July**	**Thursday 19 July**	**Friday 20 July**
Morning 9am – 12.30pm	Lecture 9: *Ordinary Differential Equations (second order)* Problem Class: *Second order ODEs*Group activity: *Skydiving*	Lecture 10: *Periodic Motion* Problem Class: *Problems in Engineering* Group activity: *Simple harmonic motion*	Lecture 11**:** *Functions of Multiple Variables* Problem Class: *Functions of Multiple Variables* Group activity: *The wave equation*	Revision Class	*Conclusions and wrap up* Students to complete online feedback survey
Afternoon	Private study or free time	Private study or free time	Private study or free time	Private study or free time	Farewell Event

This timetable is subject to change.